

In the Claims:

Per the new rules, all claims, including those not changed by the present amendment, have been included.

1. An automatic rock saw comprising:

a frame;

a blade operatively attached to the frame;

a blade motor mounted on the frame and operatively attached to the blade to power the blade;

a first conveyor having rollers and a conveyor belt to convey material to be cut to the blade, said first conveyor mounted on the frame such that the conveyor belt is substantially perpendicular to the blade;

a second conveyor having rollers and a conveyor belt to convey material to be cut to the blade, said second conveyor mounted on the frame substantially parallel to and distance D1 away from the blade and above the ~~horizontal~~ first conveyor;

a conveyor motor mounted on the frame and operatively attached to the first and second conveyor to power the conveyors such that both conveyor run at the substantially the same speed;

a sensor attached to the blade motor to detect load on the blade motor; and

a controller to control the speed of the conveyor motor based on an inverse relation to the load on the blade motor.

2. The rock saw of claim 1, wherein the inverse relation of the load on the blade motor to the speed of the conveyor motor is: speed of conveyor motor (mA)= blade motor load (mA) X 1.5022 + 2.5450.

3. The rock saw of claim 1 further comprising a holding mechanism to hold the material to be cut against the second conveyor as it is carried to the blade.

4. The rock saw of claim 3 wherein the holding mechanism further comprises:
at least one holding arm having a first and second end;
the holding arm being rotatably attached to the frame at the first end and located
opposite the second conveyor and spring biased in the direction of the second
conveyor; and
a holder movably attached to the second end, said holder functioning to press the
material to be cut against the second conveyor and allowing the material to
move along the attachment.
5. The rock saw of claim 1 further comprising a water jet to clean the material of cutting
debris after the material is cut by the blade.
6. The rock saw of claim 1 further comprising:
a second blade and second blade motor operatively mounted on a blade frame;
the blade frame pivotally attached to the frame such that the second blade is
substantially perpendicular to the blade and substantially parallel to and above
the first conveyor.
7. An automatic rock saw comprising:
a frame;
a circular blade means attached to the frame functioning to cut a desired material;
a blade motor mounted on the frame and operatively attached to the blade to power the
circular blade means;
a first conveyor means substantially perpendicular to the circular blade means
functioning to convey material to be cut to the circular blade means mounted on
the frame;
a second conveyor means to convey material to be cut to the circular blade means
mounted on the frame substantially parallel to and distance D1 away from the
circular blade means and above the first conveyor means;

a conveyor motor mounted on the frame and operatively attached to the conveyors to
power the conveyors such that both conveyor run at the same speed;
a sensor means attached to the blade motor to detect load on the blade motor;
a controller means connected to the sensor means to control the speed of the conveyor
motor and functioning to vary the speed of the conveyor motor means based on
the load on the blade motor.

8. The rock saw of claim 7 further comprising a holding means functioning to hold the
material to be cut against the second conveyor means as it is carried to the circular blade means.